



Econ 459

Games and Economic Behavior

Summer 2017, MTWRF 10:00-11:35 am, ALLN 1002

Manuel Hoffmann

manuelhoffmann@tamu.edu

Office Location: Allen 3058

Office Hours: W 1-3 pm

Some content of the course syllabus may change during the course.

Course Description: Game Theory is the study of strategic interactions of rational and irrational agents. The payoff of an agent does not only depend on his own action but also the actions of others. Game Theory has evolved into a discipline with applications in many fields not only economics but also politics and biology, to mention just a few. Students of this course will get familiar with the mathematical and conceptual foundation of game theoretical models.

Prerequisite(s): ECON 323; MATH 142 or equivalent or approval of instructor.

Learning Outcomes: Upon the successful completion of this course, you will be able to apply game theoretic solution concepts, including Nash Equilibrium, Mixed Equilibrium, and Subgame Perfect Equilibrium, to economic situations and know when these game theoretic solutions make accurate predictions and give effective advice.

Credit Hours: 3

Grading: Your grade will be determined on the basis of three exams, homeworks, and in class quizzes. Each of the three exams will be worth 25 percent of your final grade. Homework and in-class quizzes will collectively be worth 25 percent of your final grade. No late assignments will be accepted. As per Student Rule 7.4, exams missed due to an unexcused absence will receive a grade of zero. Excused absences will only be granted according to the process described in Student Rule 7.

Final Score	90-100	80-89	70-79	60-69	< 69
Letter Grade	A	B	C	D	F

Required Materials:

Get one semester access to Top Hat

Purchase Online at: <http://app.tophat.com/register/student>

The Top Hat Course Code is: 465359.

Online Assignments: Online homework and quizzes must be completed through Top Hat. Late assignments will not receive credit.

Additional Materials: All of the content that is required for the class is covered within the slides and everything is accessible via Top Hat. For additional reading, I refer you to:

Avinash Dixit & Susan Skeath & David Reiley, *Games of Strategy*, 4th Edition.
Martin J. Osborne, *An Introduction to Game Theory*, 2012.

Examinations: To each exam, you must bring: a grey ($8\frac{1}{2}$ by 11) Texas A&M University scantron, a #2 pencil, your TAMU student ID card, and a non-programmable calculator. You must turn-off your cell phone during exams. Any violation of these exam policies can result in point deductions or a failing grade. Make-up exams will only be available to students who let me know BEFORE the deadline AND provide verifiable proof within 48 hours. See rule 7 of the Texas A&M University Student Rules for more details regarding the make-up policy.

Aggie Honor Code: “An Aggie does not lie, cheat, or steal or tolerate those who do.” Upon accepting admission to Texas A&M, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. For additional information please visit www.tamu.edu/aggiehonor.

Student Learning Outcomes: Texas A&M University has identified student learning outcomes that describe our institutional commitment to your education goals. These include the ability to demonstrate critical thinking, effective communication, and social, cultural, and global competence. Please see <http://provost.tamu.edu>.

ADA Policy Statement: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit <http://disability.tamu.edu>.

Tentative Course Outline:

All dates are subject to change. Any changes will be announced in the class:

Wednesday	7/5	What are Games?, The Extensive Form, Imperfect Information
Thursday	7/6	Pure Strategies, Uncertainty
Friday	7/7	Expected Payoffs, The Normalform
Monday	7/10	Mixed Strategies, Best Responses
Tuesday	7/11	Nash Equilibrium (NE), Subgames
Wednesday	7/12	Subgame Perfection, Strictly Dominated Strategies
Thursday	7/13	Weakly Dominated Strategies
Friday	7/14	Review for Exam 1
Monday	7/17	Exam 1
Tuesday	7/18	Strictly and Weakly Dominant Strategies
Wednesday	7/19	Iterated Elimination of Strictly Dominated Strategies
Thursday	7/20	Responding to Mixed Strategies, Mixed Best Responses
Friday	7/21	Mixed Strategy NE
Monday	7/24	Finding Mixed Strategy NE
Tuesday	7/25	Review for Exam 2
Wednesday	7/26	Exam 2
Thursday	7/27	Game Theory and Mechanism Design
Friday	7/28	Introduction to Matching, Stable Matchings and Orderly Markets
Monday	7/31	House Allocation and Kidney Exchange, School Choice
Tuesday	8/1	Auction Theory, Auction Design
Wednesday	8/2	Common Value Auctions, Financial Exchanges
Thursday	8/3	Multi-Unit and Treasury Auctions
Friday	8/4	Review for Exam 3
Monday	8/7	Exam 3